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Epidemiologic Notes and Reports

Plague Pneumonia — California

On March 30, 1984, a 35-year-old Claremont, California, veterinarian had onset of an illness subsequently identified as bubonic plague with secondary plague pneumonia. This is the first person since 1924 to acquire plague pneumonia infection in Los Angeles County, California. Claremont is within 10 miles of the area where a human case of bubonic plague was identified in May 1979. The veterinarian became ill with fatigue and fever on March 30 and developed a cough on March 31. On April 2, he consulted a private physician complaining of a tender left axilla and forearm. No enlarged lymph nodes or bite sites were identified. He was placed on cefadroxil, 500 mg twice daily. He returned to his physician the next morning with a painful, edematous left upper arm. Axillary vein thrombosis was diagnosed, and he was hospitalized.

Antibiotic therapy with a cephalosporin was continued intravenously. On April 4, he complained of chest pain, cough, and shortness of breath. A chest radiograph revealed bilateral pulmonary infiltrates. A diagnosis of plague was considered, and appropriate antibiotic therapy and respiratory isolation precautions were begun. Fluorescent antibody testing of a lymph-node aspirate was positive for *Yersinia pestis* on April 5; a smear from a lymph-node aspirate showed bipolar staining, gram-negative organisms suggestive of *Y. pestis*. The organism was also isolated from blood and a bubo aspirate and seen on a sputum smear. By April 7, the patient had pleocytosis and signs of meningeal irritation. Chloramphenicol was added to the antibiotic regimen. On April 9, the patient was in stable condition.

Sixty-one persons who had face-to-face contact with the patient after he began coughing were considered to be at risk; they included two family members, one office associate, the physician and two of his staff, and 55 hospital contacts. All adults were treated with tetracycline, the drug of choice for plague prophylaxis, and advised to monitor their temperatures daily for 7 days. One pregnant woman and one child were treated with trimethoprim/sulfamethoxazole. A co-worker of the patient was already on tetracycline for another condition. No secondary cases have occurred, and active surveillance in surrounding hospitals has not identified any other cases.

The patient, who has a small-animal practice, denied contact with wild animals or travel outside his local area. He had no history of a needlestick injury or cut during surgery or other procedures. His office and home environment were investigated as potential sources of infection. Office records and charts of all animals seen by the veterinarian during the week before onset of symptoms were evaluated. Only one animal, cat A, had an illness with symptoms compatible with those usually seen with pneumonic plague (difficulty breathing and hemoptysis) but had no fever. The cat died, and its body was not available for autopsy. No suspicious illnesses among neighborhood animals or owners were noted, but 51 pet owners were con-

Plague Pneumonia — Continued

tacted and advised to disinfest their pets and to avoid contact with ground squirrels and other rodents.

Despite significant roof-rat activity at the veterinarian's residence during 5 days of trapping by the Los Angeles County Vector Control, no rodents were caught, and no signs of rodent die-off were found. The patient had gardened 5 days before onset of his illness. Serum samples from four of the veterinarian's animals—a household pet rabbit and dog, plus a cat (cat B) and dog from the office—tested for antibody to *Y. pestis* were negative. After the negative surveillance serum was collected from cat B, it developed a febrile illness and was treated with antibiotics; a convalescent serum from cat B had a titer of 512 to *Y. pestis*. This animal had contact with cat A, which was believed responsible for the veterinarian's infection. Evidence of epizootic die-off of rodents was found in the area in which cat A lived. Several dogs, cats, and coyotes were bled from that area and exhibited antibody to *Y. pestis*.

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Editorial Note: Veterinarians and their assistants engaged in small-animal practices in plague enzootic areas have a definite risk of exposure to plague infection from their free-roaming patients. Since 1959, four veterinarians and one veterinary assistant have had confirmed plague infections; one veterinarian in Santa Clara County, California, died. The veterinary assistant (Cheyenne, Wyoming) developed primary plague pneumonia after exposure to a terminally ill cat, subsequently confirmed to have plague pneumonia. Additionally, there have been reports of dogs and cats associated with the acquisition of plague by 20 other persons since 1959, demonstrating the increasing awareness of the role of pet carnivores in the epidemiology of human plague (*1,2*).

Lung involvement is possible with bubonic or septicemic plague. Since 1975, 32 (17%) of 188 human plague patients have had plague pneumonia. Four of these were primary plague pneumonias acquired from sick pet cats (*3*) or a pet dog (*1*); the remaining 27 cases involved pneumonic involvement secondary to bubonic or septicemic plague. Prevention of plague pneumonia is best achieved by rapid diagnosis of plague concomitant with rapid initiation of specific antibiotic therapy.

Over 2,000 people have been placed on prophylactic antibiotics following exposure to patients with suspected or known plague pneumonia; others have been placed on disease surveillance (*3*). To date, no person-to-person spread of plague from a patient to his or her contacts has been reported.

Health-care personnel should take care of patients with evidence of respiratory involvement during illnesses compatible with plague using appropriate isolation precautions (*4,5*). The onset of cough on the second day of illness in this patient, followed by clinical evidence of pneumonia 4 days later, raised the question of his infectivity during the 4 days before hospitalization. An extremely careful historic and clinical evaluation or a chest radiograph during the first 5 days of illness may have provided information regarding his potential communicability. In this situation, the necessity to determine his exact period of infectivity was not crucial, since all his contacts were identified and treated with prophylactic antibiotics. This is in contrast to a situation occurring in 1976 when a 15-year-old male ill for 4 days developed clinical evidence of plague pneumonia 2 hours after being hospitalized. Twenty-four hours before hospitalization, he had attended a community church meeting. Since tracking his possible contacts at that meeting would have been an enormous task, it was crucial to correctly determine which of his contacts were at risk (*6,7*).

Plague Pneumonia —Continued

Since 1978, additional plague infections acquired in Los Angeles County and elsewhere have been diagnosed in Los Angeles County. Thus, Los Angeles—and the entire southern California area—are "susceptible" to the occurrence of human plague, whether indigenously acquired or imported, and the medical communities of the area and the nation should remain alert to the potential for plague in persons with compatible epidemiologic features.

References

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International Notes

Premature Labor and Neonatal Sepsis caused by *Campylobacter fetus*, subsp. *fetus* — Ontario

Evidence is growing that *Campylobacter fetus*, subsp. *fetus*, causes human abortion and premature labor. A case report follows.

A 900-gram male infant was delivered vaginally in a Toronto, Ontario, Canada, hospital, 5 hours after the spontaneous onset of labor at 26 weeks' gestation. Apgar scores were 1 and 5 at 1 and 5 minutes, respectively. The infant was intubated, given penicillin G (25,000 U), and transferred to the neonatal intensive care unit. On arrival, his temperature was 34.8 C (95 F) rectally; systolic blood pressure, 78; heart rate, 164 beats/minute; and respiratory rate, 48/minute. The infant was lethargic, with moderate respiratory distress. A chest radiograph showed a normal cardiac silhouette, with a bilateral reticular pattern and air bronchograms in both lung fields. The infant was felt to be premature, with neonatal respiratory distress syndrome and sepsis. Ampicillin (100 mg/kg/day) and gentamicin (5 mg/kg/day) were given. A Gram stain of a gastric aspirate revealed numerous curved gram-negative bacilli with an appearance typical of *Campylobacter*; erythromycin (40 mg/kg/day) was also started. *C. fetus*, subsp. *fetus*, was isolated from this aspirate, as well as from blood and stool. Cerebrospinal fluid (CSF) obtained after antibiotics were started was clear, had six red blood cells, 106 white blood cells (55% polymorphonuclear cells), and a glucose of 2.6 mmol/L. No organisms were seen on Gram stain.

The infant steadily improved over the next few days and was extubated after 6 days. He received ampicillin and gentamicin for 3 weeks; erythromycin was discontinued after 1 week.

The infant's mother was a 28-year-old office worker. Her first pregnancy 4 years earlier had been uneventful, and she had carried her infant to term. She had felt well during the current pregnancy until 2 weeks before her premature delivery, when she had fever and chills for

Campylobacter fetus — *Continued*

1 day and watery diarrhea for 3 days. No other family members had been ill, and there was no history of contact with family pets or other animals. She had not consumed unpasteurized milk or milk products.

C. fetus, subsp. *fetus*, was isolated from the mother's vagina and stool 2 days postpartum. The organism was identified by its unique morphology and motility when viewed by phase-contrast microscopy and its biochemical characteristics. Disc diffusion antibiotic susceptibility testing showed that all isolates from both mother and infant were susceptible to ampicillin (10 μg), erythromycin (15 μg), gentamicin (10 μg), and chloramphenicol (30 μg) but resistant to tetracycline (5 μg). CSF culture was negative.

Reported in Canada Diseases Weekly Report *1984;10:102-3 by AE Simor, MD, MA Karmali, MD, T Jadavji, MD, Depts of Bacteriology and Pediatrics, The Hospital for Sick Children, Toronto, Ontario, Canada.*

Editorial Note: Within the genus *Campylobacter*, only *C. jejuni*, *C. coli*, and *C. fetus*, subsp. *fetus*, are known to be associated with human disease. The former is a major cause of infectious diarrhea (*1*); the latter typically causes bacteremia and sepsis in the immunocompromised host (*2*). *C. fetus*, subsp. *fetus*, was first recognized nearly 70 years ago as a cause of

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TABLE I. Summary—cases of specified notifiable diseases, United States

Disease	34th Week Ending			Cumulative, 34th Week Ending		
	August 25, 1984	August 27, 1983	Median 1979-1983	August 25, 1984	August 27, 1983	Median 1979-1983
Acquired Immunodeficiency Syndrome (AIDS)	85	N	N	2,643	N	N
Aseptic meningitis	285	598	407	3,869	5,852	4,596
Encephalitis: Primary (arthropod-borne & unspec.)	29	84	45	619	933	748
Post-infectious	-	1	1	66	65	65
Gonorrhea: Civilian	17,342	18,959	19,332	532,365	581,109	637,399
Military	377	433	373	13,822	15,853	17,723
Hepatitis: Type A	373	429	462	13,479	13,559	16,447
Type B	470	544	370	16,212	15,407	13,184
Non A, Non B	70	50	N	2,395	2,224	N
Unspecified	118	129	159	3,839	4,662	6,525
Legionellosis	10	12	N	366	463	N
Leprosy	-	2	3	142	163	136
Malaria	20	21	21	576	508	701
Measles: Total*	17	9	17	2,185	1,205	2,517
Indigenous	14	2	N	1,935	1,001	N
Imported	3	7	N	250	204	N
Meningococcal infections: Total	24	30	30	1,930	1,961	1,961
Civilian	24	30	30	1,925	1,946	1,946
Military	-	-	-	5	15	14
Mumps	23	22	35	2,132	2,382	4,153
Pertussis	24	53	50	1,260	1,456	929
Rubella (German measles)	6	9	11	508	751	1,952
Syphilis (Primary & Secondary): Civilian	510	728	603	17,971	21,160	19,654
Military	5	8	8	219	270	240
Toxic Shock syndrome	3	1	N	287	293	N
Tuberculosis	384	528	528	13,776	15,149	17,400
Tularemia	13	8	7	205	193	153
Typhoid fever	5	13	13	200	257	295
Typhus fever, tick-borne (RMSF)	28	45	39	576	858	846
Rabies, animal	81	149	149	3,323	4,206	4,206

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1984		Cum. 1984
Anthrax	1	Plague	17
Botulism: Foodborne	7	Poliomyelitis: Total	2
Infant (Pa. 2)	65	Paralytic	2
Other	5	Psittacosis (Upstate N.Y. 1, Ohio 1, Tex. 1)	57
Brucellosis (Mass. 1, Conn. 1, Mo. 1, Tenn. 1)	71	Rabies, human	1
Cholera	-	Tetanus (Mass. 1, Ill. 1, Mo. 1, S.D. 1)	39
Congenital rubella syndrome	3	Trichinosis (Conn. 1, Pa. 1)	59
Diphtheria	-	Typhus fever, flea-borne (endemic, murinal (Tex. 1)	15
Leptospirosis (Iowa 2, Fla. 1)	13		

*Three of the 17 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 25, 1984 and August 27, 1983 (34th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1984	1984	Cum. 1984	Cum. 1984	Cum. 1984	Cum. 1983	1984	1984	1984	1984	1984	Cum. 1984
UNITED STATES	2,643	285	619	66	532,365	581,109	373	470	70	118	10	142
NEW ENGLAND	92	23	35	1	15,179	14,770	9	29	4	17	2	7
Maine	-	7	-	-	622	723	1	-	1	-	1	-
N.H.	1	2	5	-	425	461	-	3	-	-	-	-
Vt.	-	-	3	-	238	276	-	-	1	-	1	-
Mass.	50	13	19	-	8,206	8,370	7	20	1	17	-	5
R.I.	6	-	-	-	1,069	809	-	2	-	-	-	2
Conn.	35	1	8	1	6,619	6,131	1	4	1	-	-	-
MID ATLANTIC	1,154	65	77	8	72,031	74,013	44	84	4	4	-	25
Upstate N.Y.	112	15	27	5	10,906	11,778	7	9	-	1	-	2
N.Y. City	823	6	4	-	29,669	29,857	11	34	-	3	-	23
N.J.	161	20	21	-	12,177	13,644	14	20	-	-	-	-
Pa.	58	24	25	3	19,279	18,734	12	21	4	-	-	-
E.N. CENTRAL	116	60	154	17	74,101	83,863	38	55	5	12	4	6
Ohio	15	31	47	9	19,463	21,768	24	24	1	5	2	2
Ind.	16	3	33	-	8,213	8,655	-	-	1	2	-	-
Ill.	60	-	17	6	16,723	23,689	-	1	-	1	-	2
Mich.	16	26	37	-	21,422	22,486	12	29	3	4	2	2
Wis.	9	-	20	2	8,280	7,265	-	1	-	-	-	-
W.N. CENTRAL	26	7	48	1	25,886	27,267	8	10	1	1	3	1
Minn.	7	2	20	-	3,865	3,737	1	3	-	-	-	-
Iowa	1	-	17	-	2,823	2,936	-	2	-	-	-	1
Mo.	13	2	7	-	12,536	13,463	4	3	1	1	3	-
N. Dak.	-	1	-	-	255	281	-	-	-	-	-	-
S. Dak.	-	-	-	1	615	732	3	-	-	-	-	-
Nebr.	2	1	1	-	1,804	1,754	-	2	-	-	-	-
Kans.	3	1	3	-	3,988	4,364	-	-	-	-	-	-
S. ATLANTIC	383	72	96	14	135,239	149,993	15	97	20	13	1	6
Del.	4	-	1	-	2,459	2,703	-	-	1	-	-	-
Md.	26	20	23	-	15,064	19,313	-	13	2	2	-	-
D.C.	58	2	-	-	9,731	10,260	-	2	-	1	-	1
Va.	20	7	22	5	12,826	13,322	3	9	2	-	-	4
W. Va.	4	1	7	-	1,650	1,515	1	1	-	-	1	-
N.C.	9	5	20	7	21,791	22,895	-	14	1	-	-	-
S.C.	6	-	4	-	13,782	14,211	1	17	3	-	-	-
Ga.	34	16	2	1	24,930	30,132	1	14	2	1	-	-
Fla.	222	21	17	1	33,006	35,642	9	27	9	9	-	1
E.S. CENTRAL	17	21	32	6	46,456	48,631	9	25	7	-	-	-
Ky.	7	1	5	-	5,609	5,667	4	2	2	-	-	-
Tenn.	4	8	9	1	19,452	20,094	3	10	1	-	-	-
Ala.	4	12	16	5	14,622	14,952	2	10	4	-	-	-
Miss.	2	-	2	-	6,773	7,918	-	3	-	-	-	-
W.S. CENTRAL	179	13	43	4	73,175	82,280	44	32	3	32	-	16
Ark.	1	-	-	2	6,423	6,313	1	-	-	5	-	1
La.	22	1	6	-	16,415	15,283	5	3	-	2	-	1
Okla.	6	2	14	1	7,899	9,565	13	3	-	1	-	-
Tex.	150	10	23	1	42,438	51,119	25	26	3	24	-	14
MOUNTAIN	42	4	20	7	17,031	18,473	63	34	6	9	-	7
Mont.	-	-	-	-	735	781	4	-	-	-	-	-
Idaho	-	-	-	-	858	772	1	3	-	-	-	-
Wyo.	1	-	-	-	485	487	1	-	-	-	-	-
Colo.	24	-	7	-	4,780	5,202	10	6	1	2	-	-
N. Mex.	-	-	-	-	1,999	2,284	13	7	1	4	-	-
Ariz.	9	3	7	3	4,591	5,261	10	12	1	2	-	5
Utah	3	1	6	4	842	870	14	1	2	-	-	1
Nev.	5	-	-	-	2,741	2,816	10	5	1	1	-	1
PACIFIC	634	20	114	8	73,267	81,819	145	104	20	30	-	74
Wash.	32	1	7	-	5,075	6,453	10	2	3	-	-	3
Oreg.	5	-	-	-	4,409	4,446	11	3	1	-	-	1
Calif.	584	19	105	8	60,719	67,162	122	99	15	30	-	55
Alaska	1	-	-	-	1,833	2,099	2	-	-	-	-	-
Hawaii	12	-	2	-	1,231	1,659	-	-	1	-	-	15
Guam	-	U	-	-	95	109	U	U	U	U	U	-
P.R.	33	5	-	1	2,253	1,752	4	11	-	6	-	2
V.I.	-	U	-	-	271	181	U	U	U	U	U	-
Pac. Trust Terr.	-	U	-	-	-	-	U	U	U	U	U	-

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 25, 1984 and August 27, 1983 (34th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1984	1984	Cum. 1984	1984	Cum. 1984	Cum. 1983	Cum. 1984	1984	Cum. 1984	1984	Cum. 1984	Cum. 1983	1984	Cum. 1984	Cum. 1983
UNITED STATES	576	14	1,935	3	250	1,205	1,930	23	2,132	24	1,280	1,456	6	508	751
NEW ENGLAND	35	1	94	-	11	16	112	1	67	-	38	45	1	20	14
Maine	-	-	-	-	-	-	1	1	20	-	1	4	-	1	-
N.H.	-	-	34	-	3	3	7	-	15	-	8	7	-	1	4
Vt.	3	-	2	-	5	-	26	-	5	-	17	7	-	-	5
Mass.	19	1	48	-	-	5	37	-	10	-	10	22	1	18	5
R.I.	4	-	-	-	-	-	11	-	8	-	1	5	-	-	-
Conn.	9	-	10	-	3	8	30	-	9	-	1	-	-	-	-
MID ATLANTIC	90	-	111	-	30	92	338	1	245	1	111	290	1	180	133
Upstate N.Y.	22	-	21	-	10	9	115	-	80	1	64	88	-	101	24
N.Y. City	20	-	86	-	14	53	72	-	18	-	5	46	1	60	86
N.J.	28	-	4	-	2	27	69	-	128	-	6	17	-	15	3
Pa.	20	-	-	-	4	3	82	1	39	-	36	129	-	4	20
E.N. CENTRAL	50	-	584	-	68	632	311	4	866	1	333	327	2	75	113
Ohio	13	-	3	-	5	85	107	3	432	-	57	96	-	2	2
Ind.	1	-	2	-	1	400	38	-	49	-	220	35	-	2	23
Ill.	17	-	161	-	1	139	64	-	160	-	20	120	1	44	47
Mich.	9	-	402	-	54	7	60	1	157	1	21	23	1	19	15
Wis.	10	-	16	-	7	1	42	-	68	-	15	63	-	8	26
W.N. CENTRAL	17	-	3	-	7	2	119	1	84	1	105	89	-	31	31
Minn.	6	-	-	-	3	1	22	-	4	-	12	33	-	2	6
Iowa	1	-	-	-	-	-	21	-	19	1	9	5	-	1	-
Mo.	6	-	3	-	-	1	35	-	6	-	16	18	-	-	-
N. Dak.	1	-	-	-	-	-	1	1	2	-	-	1	-	3	-
S. Dak.	-	-	-	-	-	-	6	-	-	-	7	6	-	-	-
Nebr.	1	-	-	-	-	-	11	-	4	-	11	-	-	-	-
Kans.	2	-	-	-	4	-	23	-	49	-	50	26	-	25	25
S. ATLANTIC	94	-	14	3	27	195	401	5	154	9	106	192	-	21	91
Del.	4	-	-	-	-	-	3	-	2	-	2	3	-	-	-
Md.	23	-	6	3†	14	10	32	-	29	-	8	25	-	1	3
D.C.	1	-	-	-	5	-	5	-	-	-	-	-	-	-	-
Va.	25	-	1	-	2	23	47	-	15	-	12	45	-	-	2
W. Va.	1	-	-	-	-	-	5	2	31	1	10	5	-	-	-
N.C.	6	-	-	-	-	1	59	-	17	4	21	21	-	-	10
S.C.	2	-	-	-	-	4	42	2	4	-	1	13	-	-	1
Ga.	8	-	-	-	-	8	81	-	17	1	10	56	-	2	11
Fla.	24	-	7	-	6	149	127	1	39	3	42	24	-	18	64
E.S. CENTRAL	6	-	1	-	2	6	105	-	41	3	11	18	-	9	11
Ky.	-	-	1	-	-	1	41	-	9	-	1	7	-	3	10
Tenn.	2	-	-	-	2	-	26	-	12	2	6	4	-	-	-
Ala.	4	-	-	-	-	5	25	-	6	-	-	3	-	3	1
Miss.	-	-	-	-	-	-	13	-	14	1	4	4	-	3	-
W.S. CENTRAL	55	-	489	-	22	73	204	-	112	4	244	275	-	13	98
Ark.	-	-	-	-	-	12	27	-	5	2	15	18	-	3	-
La.	7	-	-	-	-	25	44	-	-	-	4	5	-	-	9
Okla.	8	-	-	-	8	1	23	N	N	2	208	205	-	-	-
Tex.	40	-	489	-	14	35	110	-	107	-	17	47	-	10	87
MOUNTAIN	20	-	91	-	39	4	67	2	205	1	92	152	-	16	27
Mont.	1	-	-	-	-	-	2	-	6	1	19	1	-	-	3
Idaho	2	-	-	-	23	-	6	-	9	-	7	6	-	1	8
Wyo.	-	-	-	-	-	1	2	1	2	-	3	6	-	2	2
Colo.	3	-	-	-	6	2	24	-	16	-	32	100	-	2	-
N. Mex.	1	-	68	-	8	-	7	N	N	-	6	9	-	-	-
Ariz.	9	-	-	-	-	1	14	1	165	-	17	14	-	1	6
Utah	4	-	23	-	2	-	7	-	5	-	6	16	-	6	7
Nev.	-	-	-	-	-	-	5	-	2	-	2	-	-	4	1
PACIFIC	209	13	548	-	44	185	273	9	358	4	222	78	2	143	235
Wash.	7	5	125	-	13	5	42	-	36	2	58	13	-	1	9
Oreg.	10	-	-	-	-	9	39	N	N	-	14	6	-	1	13
Calif.	189	-	270	-	27	166	184	9	297	2	81	57	2	137	211
Alaska	-	-	-	-	-	2	7	-	7	-	-	-	-	1	1
Hawaii	3	8	153	-	4	1	1	-	18	-	69	2	-	3	1
Guam	1	U	83	U	2	2	1	U	5	U	-	-	U	2	-
P.R.	4	-	-	-	-	81	3	1	107	-	-	9	1	7	4
V.I.	-	U	-	U	-	5	-	U	3	U	-	-	U	-	2
Pac. Trust Terr.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 25, 1984 and August 27, 1983 (34th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1984	Cum. 1983	1984	Cum. 1984	Cum. 1983	Cum. 1984	Cum. 1984	Cum. 1984	Cum. 1984
UNITED STATES	17,971	21,160	3	13,776	15,149	205	200	576	3,323
NEW ENGLAND	342	442	-	396	438	4	11	4	30
Maine	3	15	-	19	26	-	-	-	10
N.H.	12	19	-	26	29	-	-	-	8
Vt.	1	1	-	9	6	-	-	-	-
Mass.	199	272	-	210	233	4	9	3	7
R.I.	13	15	-	29	32	-	-	-	-
Conn.	114	120	-	103	112	-	2	1	5
MID ATLANTIC	2,391	2,708	-	2,549	2,663	-	31	17	254
Upstate N.Y.	169	225	-	431	410	-	11	6	43
N.Y. City	1,477	1,600	-	1,003	1,086	-	7	1	-
N.J.	438	521	-	566	567	-	7	3	12
Pa.	307	362	-	549	600	-	6	7	199
E.N. CENTRAL	856	1,146	1	1,838	1,990	3	27	41	149
Ohio	162	300	-	346	304	-	5	27	15
Ind.	88	87	-	199	212	-	2	4	16
Ill.	292	559	-	759	866	3	10	6	57
Mich.	265	148	1	418	503	-	4	2	16
Wis.	49	54	-	116	105	-	6	-	45
W.N. CENTRAL	269	254	1	432	496	68	6	41	534
Minn.	72	103	-	74	103	1	2	-	57
Iowa	11	14	-	45	45	-	-	4	109
Mo.	136	95	-	220	244	33	3	11	41
N. Dak.	10	2	-	10	5	-	-	-	114
S. Dak.	-	9	-	15	32	31	-	4	133
Nebr.	11	11	1	22	20	-	-	4	36
Kans.	29	20	-	46	47	3	1	18	44
S. ATLANTIC	5,372	5,601	-	2,866	3,041	5	26	271	917
Del.	13	23	-	39	24	-	-	1	4
Md.	332	362	-	293	240	-	2	24	483
D.C.	216	245	-	108	125	-	6	-	-
Va.	265	388	-	298	323	-	7	41	157
W. Va.	13	18	-	89	94	-	-	6	32
N.C.	548	525	-	432	440	1	1	98	18
S.C.	498	348	-	342	268	-	1	68	37
Ga.	915	1,031	-	408	560	4	1	33	122
Fla.	2,572	2,661	-	957	967	-	8	2	64
E.S. CENTRAL	1,213	1,454	-	1,266	1,365	3	5	56	173
Ky.	65	100	-	303	314	-	2	9	45
Tenn.	337	408	-	394	427	3	2	30	61
Ala.	419	569	-	378	356	-	1	11	67
Miss.	392	377	-	191	268	-	-	6	-
W.S. CENTRAL	4,399	5,545	-	1,563	1,858	92	11	132	696
Ark.	126	136	-	166	212	67	-	23	71
La.	782	1,145	-	207	302	7	1	2	43
Okla.	140	144	-	151	184	16	2	84	84
Tex.	3,351	4,120	-	1,039	1,160	2	8	23	498
MOUNTAIN	392	438	-	355	422	23	10	11	193
Mont.	2	6	-	14	34	2	1	8	87
Idaho	16	6	-	23	24	6	-	1	8
Wyo.	4	10	-	-	10	1	-	2	11
Colo.	93	95	-	39	57	5	2	-	30
N. Mex.	53	128	-	66	83	2	3	-	9
Ariz.	145	108	-	168	161	3	3	-	34
Utah	12	16	-	29	31	2	-	-	2
Nev.	67	69	-	16	22	2	1	-	12
PACIFIC	2,737	3,572	1	2,511	2,876	7	73	3	377
Wash.	83	127	-	124	152	1	2	-	1
Oreg.	76	89	-	107	122	2	1	1	1
Calif.	2,523	3,301	1	2,096	2,406	4	65	1	369
Alaska	3	9	-	43	42	-	1	1	6
Hawaii	52	46	-	141	152	-	4	-	-
Guam	-	-	U	5	5	-	-	-	-
P.R.	537	648	-	254	329	-	3	-	40
V.I.	8	16	U	2	2	-	3	-	-
Pac. Trust Terr.	-	-	U	-	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 25, 1984 (34th Week Ending)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	605	418	128	30	16	13	43
Boston, Mass.	160	95	39	15	6	5	14
Bridgeport, Conn.	54	37	11	4	1	1	3
Cambridge, Mass.	15	12	2	1	-	-	4
Fall River, Mass.	16	13	3	-	-	-	-
Hartford, Conn.	70	47	18	1	3	1	3
Lowell, Mass.	25	21	4	-	-	-	2
Lynn, Mass.	11	9	2	-	-	-	-
New Bedford, Mass.	24	18	5	1	-	-	1
New Haven, Conn.	36	24	9	2	1	-	1
Providence, R.I.	47	35	9	1	1	1	7
Somerville, Mass.	12	10	2	-	-	-	-
Springfield, Mass.	47	32	8	3	2	2	5
Waterbury, Conn.	29	24	4	1	-	-	2
Worcester, Mass.	59	41	12	1	2	3	1
MID. ATLANTIC	2,190	1,412	449	210	55	63	92
Albany, N.Y.	46	31	7	4	-	4	1
Allentown, Pa.	17	15	2	-	-	-	-
Buffalo, N.Y.	71	46	17	4	3	1	3
Camden, N.J.	29	16	8	1	1	3	-
Elizabeth, N.J.	28	19	6	1	-	-	2
Erie, Pa.†	45	34	10	1	-	-	1
Jersey City, N.J.	39	26	8	4	-	1	1
N.Y. City, N.Y.	1,318	845	263	136	37	37	48
Newark, N.J.	78	37	14	15	3	8	4
Paterson, N.J.	32	21	4	4	2	1	1
Philadelphia, Pa.†	97	54	26	10	4	3	1
Pittsburgh, Pa.†	56	43	9	3	-	1	3
Reading, Pa.	29	21	4	2	2	-	3
Rochester, N.Y.	100	71	21	6	1	1	14
Schenectady, N.Y.	20	15	3	2	-	-	-
Scranton, Pa.†	23	19	3	1	-	-	2
Syracuse, N.Y.	79	46	21	8	2	2	1
Trenton, N.J.	30	14	11	4	-	1	2
Utica, N.Y.	23	18	5	-	-	-	2
Yonkers, N.Y.	30	21	5	4	-	-	3
E.N. CENTRAL	2,253	1,416	520	165	80	72	70
Akron, Ohio	59	42	7	2	5	3	-
Canton, Ohio	38	35	-	1	2	-	3
Chicago, Ill.	516	301	126	51	18	20	9
Cincinnati, Ohio	152	89	48	8	4	3	12
Cleveland, Ohio	144	90	32	9	6	7	2
Columbus, Ohio	130	93	29	7	-	1	2
Dayton, Ohio	113	68	32	8	5	-	4
Detroit, Mich.	265	151	64	26	13	11	5
Evansville, Ind.	56	38	13	4	1	-	2
Fort Wayne, Ind.	48	28	12	5	2	1	1
Gary, Ind.	12	7	1	3	1	-	-
Grand Rapids, Mich.	40	24	9	6	-	1	1
Indianapolis, Ind.	173	102	38	13	11	9	3
Madison, Wis.	36	21	10	2	-	3	2
Milwaukee, Wis.	135	97	25	5	2	6	8
Peoria, Ill.	43	33	4	1	4	1	3
Rockford, Ill.	55	31	18	3	-	3	5
South Bend, Ind.	45	30	10	3	1	1	3
Toledo, Ohio	118	82	25	5	5	1	2
Youngstown, Ohio	75	54	17	3	-	1	3
W.N. CENTRAL	674	457	138	36	26	17	29
Des Moines, Iowa	49	37	8	1	2	1	1
Duluth, Minn.	32	26	3	2	1	-	6
Kansas City, Kans.	38	27	3	4	2	2	3
Kansas City, Mo.	106	73	25	5	2	1	3
Lincoln, Nebr.	35	29	4	1	1	-	4
Minneapolis, Minn.	73	45	20	2	6	-	2
Omaha, Nebr.	82	55	13	8	3	3	4
St. Louis, Mo.	142	86	33	7	8	8	2
St. Paul, Minn.	67	53	13	-	-	1	-
Wichita, Kans.	50	26	16	6	1	1	4

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,190	749	281	75	37	48	61
Atlanta, Ga.	150	94	29	13	4	10	3
Baltimore, Md.	189	111	56	9	7	6	6
Charlotte, N.C.	78	48	18	4	5	3	3
Jacksonville, Fla.	129	82	36	8	2	1	14
Miami, Fla.	170	111	37	13	4	5	2
Norfolk, Va.	54	36	8	3	4	3	7
Richmond, Va.	86	44	24	7	4	7	7
Savannah, Ga.	40	28	6	1	2	3	3
St. Petersburg, Fla.	89	77	6	3	-	3	6
Tampa, Fla.	54	31	17	4	-	2	6
Washington, D.C.	105	61	32	8	3	1	1
Wilmington, Del.	46	26	12	2	2	4	3
E.S. CENTRAL	662	443	157	50	21	11	42
Birmingham, Ala.	109	65	27	11	-	6	2
Chattanooga, Tenn.	58	40	10	5	2	1	1
Knoxville, Tenn.	79	52	18	7	2	-	5
Louisville, Ky.	104	63	29	7	5	-	11
Memphis, Tenn.	143	101	26	10	4	2	8
Mobile, Ala.	66	47	16	2	-	1	5
Montgomery, Ala.	19	11	8	-	-	-	2
Nashville, Tenn.	104	64	23	8	8	1	8
W.S. CENTRAL	1,095	598	261	106	65	65	51
Austin, Tex.	43	23	9	3	3	5	3
Baton Rouge, La.	29	16	9	3	1	-	-
Corpus Christi, Tex.	35	22	5	4	1	3	1
Dallas, Tex.	173	73	46	20	15	19	7
El Paso, Tex.	61	39	10	6	5	1	4
Fort Worth, Tex.	102	62	21	8	6	5	7
Houston, Tex.	229	116	57	29	15	12	3
Little Rock, Ark.	52	26	13	3	2	8	7
New Orleans, La.	89	42	26	15	1	5	-
San Antonio, Tex.	155	98	28	12	12	5	13
Shreveport, La.	57	34	17	2	3	1	-
Tulsa, Okla.	70	45	20	3	1	1	6
MOUNTAIN	622	385	130	46	36	24	31
Albuquerque, N.Mex.	79	45	22	6	3	2	3
Colo. Springs, Colo.	36	21	10	3	2	-	6
Denver, Colo.	110	58	25	11	7	9	1
Las Vegas, Nev.	81	47	19	7	6	2	3
Ogden, Utah	24	17	6	-	1	-	3
Phoenix, Ariz.	145	101	19	11	9	5	6
Pueblo, Colo.	25	19	5	-	1	-	1
Salt Lake City, Utah	49	30	7	3	5	4	-
Tucson, Ariz.	73	47	17	5	2	2	8
PACIFIC	1,719	1,142	313	134	73	53	81
Berkeley, Calif.	18	15	2	1	-	-	-
Fresno, Calif.	77	50	10	6	4	7	4
Glendale, Calif.	15	11	3	-	-	1	-
Honolulu, Hawaii	50	29	6	6	5	4	3
Long Beach, Calif.	90	63	13	7	5	2	2
Los Angeles, Calif.	400	247	81	44	18	6	14
Oakland, Calif.	87	52	9	2	1	3	4
Pasadena, Calif.	45	30	9	2	2	2	5
Portland, Oreg.	115	82	14	6	11	2	2
Sacramento, Calif.	128	86	26	8	6	3	7
San Diego, Calif.	143	86	32	11	10	4	11
San Francisco, Calif.	144	93	31	12	4	4	5
San Jose, Calif.	166	122	24	10	4	6	11
Seattle, Wash.	152	104	31	10	1	6	5
Spokane, Wash.	47	32	11	2	1	1	5
Tacoma, Wash.	62	41	11	7	1	2	3
TOTAL	11,030††	7,018	2,377	854	469	388	500

* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza.

† Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages.

Campylobacter fetus — *Continued*

abortion in animals (*3*) and was subsequently found responsible for both epidemic and sporadic abortion in cattle and sheep (*4-6*).

This report adds to the growing body of evidence that *C. fetus*, subsp. *fetus*, also causes human abortion or premature labor with septicemia in the neonate (*7,8*). The incidence of maternal *C. fetus*, subsp. *fetus*, infection, leading to feto-placental involvement is not known. However, a greater awareness, earlier diagnosis, and appropriate treatment of this infection in pregnant women may prevent fetal loss.

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Current Trends

School Health Assessment, Planning, and Evaluation Project — New York City

The School Health Assessment, Planning, and Evaluation (SHAPE) project, a survey of the health status of New York City school-aged children, was conducted during October 1983 and November 1983. Over 4,500 children in grades kindergarten, 1, 3, 7, and 10 were examined by the staff of the New York City Department of Health. They were selected from 12 different schools to represent high, middle, and low socioeconomic areas of the city from a total of 1,000,000 students and over 1,000 schools.

The examination consisted of standardized height and weight measurements, visual and hearing acuity, dental and physical examinations, laboratory determinations of hematocrit and blood lead levels (in the elementary grades), and a nurse-administered history and/or record review. In addition, students in the seventh and 10th grades were given self-administered questionnaires to ascertain frequency of health-risk-associated behavior and to evaluate nutritional intake.

Based on preestablished criteria, the health status of each child was determined. If objective or historic findings indicated a need for additional health evaluation, this was enumerated as a "referrable condition." These criteria were purposefully conservative; for example, a child with visual acuity corrected by glasses to 20/20 but without written evidence of a professional eye examination within the past year was deemed "referrable." The referrable conditions found included: vision—22.9% of students examined; hearing—7.0%; asthma—4.0%; cardiac—3.1%; orthopedic—2.3%; strabismus—2.0%; other—3.6%.

SHAPE — Continued

Analyzing the frequency of risk-taking behavior documented the expected increase between the seventh and 10th grades (Table 1). The interpretation of the questionnaire responses must be guarded, since there probably were frivolous responses and some misinterpretation; however, the relative differences between grades is undoubtedly real, and the magnitude of the positive responses is considered meaningful. The increase between the seventh and 10th grades in risk-taking behaviors that contribute to health problems has led to two major changes in health-promotion activities: (1) the reintroduction of a required physical examination on entry to the seventh grade (state law mandates a physical examination at school entrance, fourth, seventh, and 10th grades, but New York City has had a waiver of this requirement) and (2) the development of a new health professional, the Health Resource Coordinator (HRC).

Concurrent with the SHAPE study, there was an increase in the resources available for health services in the school system. Educators believed there should be a nurse in every school daily, and services should be primarily targeted to the elementary schools. The beliefs of administrators, both in the health programs and educational system, would have lead to widespread employment of aides to perform first aid and keep records. Fiscal realities and the SHAPE results, however, were used to allocate the new resources into areas that addressed needs identified in the SHAPE study.

To deal with the high prevalence of visual and acoustic problems, specialized teams of paraprofessionals are being trained to perform hearing and vision testing in grades kindergarten, 1, 3, 7, and 10. This approach lends itself to quality-control mechanisms, which should prevent overreferrals. Screening had previously been the responsibility of classroom teachers or aides with very little training.

The SHAPE questionnaire for students in the higher grades inquired about students' desires for additional services. Students indicated a need for counseling in addition to classroom education. To meet this need, the HRC position has been established by the Department of Health to concentrate further on behavioral risk factors. An HRC will be assigned to each junior high school over the next 2 years. During the first year, priority will be given to schools in areas designated at highest risk for health problems. The HRCs' duties will be to link young people to needed services in the community and to improve the health of the adolescents by encouraging voluntary behavior change. HRCs will concentrate on improving the students' knowledge on obtaining health information, interpreting such information, identifying options for health decisions, and asking for assistance. Nutrition, substance abuse, sexuality, and stress management will be the areas of primary concern.

Additional pediatric nurse-practitioners, physicians, public health nurses, and public health assistants are to be deployed in the schools to assure a regularly scheduled health department

TABLE 1. Examples of students' responses to risk-taking behaviors — New York City

Risk factor	Positive answer (%)	
	Seventh grade (294 students)	10th grade (895 students)
Smoke cigarettes	5.7	15.7
10/day or more	1.4	6.9
Use alcoholic beverages	5.8	28.5
four drinks or more/week	3.7	11.1
Use marijuana	5.5	18.5
Use drugs	2.2	10.0
Sexually active	8.8	32.6

SHAPE – Continued

service in all the schools. The initial goal is to have a nurse in each elementary school weekly on the same day of the week.

This new initiative in school health by the New York City Department of Health complements the expansion of the health education curriculum in New York City.

Reported by DJ Sencer, MD, Commissioner of Health, O Pitkin, MD, J Lee, Office of Biostatistics, P Clarke, MPH, Bureau of Health Education, New York City Dept of Health, New York; Div of Health Education, Center for Health Promotion and Education, CDC.

Editorial Note: It has long been recognized that the required years of schooling present unique opportunities for early detection, referral, and correction of pupil health problems. Thus, for many years, health agencies have very actively supported pupil health appraisal and follow-through in community schools, disease prevention, and environmental protection measures. With fiscal and personnel public health resources becoming even more strained, it is becoming even more important that priorities germane to improved educability of youth and consistent with efficient public health practice be identified and implemented.

The health-education curricula being implemented by New York City's Board of Education were originally developed by CDC and the Public Health Service. They are generally known as The Primary Grades Health Curriculum Project (grades kindergarten through 3) (*1*) and The School Health Curriculum Project (grades 4-7) (*2*). They are now used by 17,000 teachers in 3,200 schools in 43 states.

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1. Lynch BS. The primary grades health curriculum project. Atlanta, Georgia: Center for Disease Control, 1980; DHEW publication no. (CDC) 80-8382.
2. CDC. The school health curriculum project. Atlanta, Georgia: Center for Disease Control, 1980; HHS publication no. (CDC) 80-8359.

Erratum: Vol. 33, No. 28

p. 393. In the article, "Rabies Prevention—United States, 1984," the second-to-last sentence under the section, "Vaccines for Use in the United States" on page 394 should state Merieux Institute's vaccine as IMOVAX® RABIES.

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The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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